

What is claimed is:

1. A fan arrangement of an internal combustion engine including an engine of a portable handheld work apparatus, the fan arrangement comprising:

5 a fan wheel for acting on air to move said air in an air flow defining a flow direction;

a fan housing at least partially surrounding said fan wheel;

10 a take-out opening disposed in the region of said air flow to branch off a component of said air flow as a combustion air flow for said internal combustion engine;

an aerodynamically formed guide ramp disposed outside of said fan wheel in radial direction;

said guide ramp rising in axial direction; and,

15 said take-out opening being disposed downstream of said guide ramp.

2. The fan arrangement of claim 1, wherein said fan wheel defines a peripheral contour; and, said guide ramp and said take-out opening are mounted close to said peripheral contour.

3. The fan arrangement of claim 2, wherein said fan housing has a radial outer peripheral wall and said guide ramp extends in radial direction approximately from said peripheral contour up to said radial outer peripheral wall of said fan housing.

4. The fan arrangement of claim 3, wherein said guide ramp has a concave contour and thereafter a convex contour in said flow direction.

5. The fan arrangement of claim 4, wherein said engine includes an ignition coil projecting into said fan housing and said guide ramp being mounted directly forward of said ignition coil viewed in said flow direction and said guide ramp being  
5 configured as a flow shroud for said ignition coil.

6. The fan arrangement of claim 5, wherein said guide ramp is a first guide ramp and wherein said fan arrangement further comprises a second guide ramp mounted downstream of said first guide ramp viewed in said flow direction; and, said second  
5 guide ramp drops off in elevation and widens the flow cross section.

7. The fan arrangement of claim 5, said take-out opening being mounted in flow direction directly after said ignition coil in a flow cross section narrowed in correspondence to said first guide ramp.

8. The fan arrangement of claim 1, wherein said engine has a carburetor and wherein said fan arrangement further comprises a combustion air channel leading from said take-out opening to said carburetor.

9. The fan arrangement of claim 8, wherein said fan housing has a radial wall; and, said combustion air channel is guided through said radial wall.

10. The fan arrangement of claim 8, wherein said fan housing includes a fan cover having a channel formed therein connected to said carburetor air channel.

11. The fan arrangement of claim 1, further comprising a baffle plate for shielding relative to said fan wheel; said baffle plate following said peripheral contour of said fan wheel and rising in axial direction; and, baffle plate being  
5 disposed in the region of said take-out opening.

12. The fan arrangement of claim 1, further comprising a guide surface disposed rearward of said guide ramp referred to said flow direction; and, said guide surface being aligned approximately horizontally and lying at approximately the  
5 elevation of said guide ramp.

13. The fan arrangement of claim 12, wherein said engine includes an ignition coil and said guide ramp is a first guide ramp and wherein said fan arrangement further comprises a second guide ramp mounted downstream of said first guide ramp  
5 viewed in said flow direction; and, said guide surface is disposed between said ignition coil and said second guide ramp; and, said take-out opening is subdivided into a vertical window and a horizontal window; and, said vertical window extends in axial direction and said horizontal window lies in said guide  
10 surface.

14. The fan arrangement of claim 1, wherein said fan housing is a spirally-shaped fan housing.